Project proposal : Sockets based quiz application

TECHNICAL CONDITION :

- Using java sockets for communication between clients and the server the server has many threads(a thread for each client) to fight for resources(a resource will be the multi-choice question).
- The struggle for resources can be parameterised(first in first access, higher points access or round robin).
- Clients and the server will have graphical interface(swing).

DESCRIPTION(DESIGN DECISION AND TEXT OF PROGRAM):

- This program use multi-clients application, with the introduction of quiz system in the server who play the role of quiz manager by sending one multi-choice question for all clients, when receiving a question clients can request answering, the server picks just one client to answer(based on differents parameters : first request first take the hand to answer, higher score acces or round robin RR) , when answer the client send back response to server who give a point to the client and update the point for it.
- For sake of simplicity, questions and answer choices are saved internally in server class (in arrayLists) and gived randomly,
- Evaluation will be done randomly by the server with points 0 (for wrong answers) or 20 (correct).
- The process will be iterated until meting stop condition when a client have 100 points.

CLASSES:

Class MyServer

- acceptClient()
- sendQuestion()
- receiveRequest()
- pickClient()
- receiveResponse()
- evalResponse()
- main()

Class ClientRegister

- Connect()
- main()

Class Client

- sendRequest()
- sendResponse()

Class Question

-List<String> questions;

- initializeQuestions()

INSTRUCTIONS FOR USE :

- Run Myserver class.
- Run ClientRegister Class : three clients will be initialized to register in the quiz app;
- Click start button on server, first question(randomly chosen from saved questions) will be sent to all clients,
- Clients may request to respond by clicking request answer button
- Server will choose one requesting client (following a parameter) then inform the client
- Chosen client may answer
- Server will evaluate the answer (randomly)
- Points will be updated.
- by timer a pause of some seconds is done the process will be repeated again.
- when a client will have 100 points wins and the Quiz will be end.